

AMENDMENTS TO THE SPECIFICATION

Please replace the present title with the following rewritten title:

A High Performance Communication Architecture for Circuit Designs using Probabilistic

Allocation of Resources

**Please delete the present Abstract of the Disclosure and replace it with the following
new Abstract of the Disclosure.**

A circuit comprising a plurality of components sharing at least one shared resource, and a lottery manager. The lottery manager is adapted to receive request for ownership for the said at least one shared resource from a subset of the plurality of components. Each of the subset of the plurality of components are assigned lottery tickets. The lottery manager is adapted to probabilistically choose one component from the subset of the plurality of components for assigning said the at least one shared resource. The probabilistic choosing is weighted based on a number of lottery tickets being assigned to each of the subset of the plurality of components.